Info Center/1
General Information Manual

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About This Manual

<table>
<tr><td>What This Manual
Contains</td><td>The best business news you've received in a long time is explained on the following pages.

This manual contains general information on Info Center/1 and what makes it so important to you as a decision-maker in your organization.

Look over the following topics and discover Info Center/1 for yourself.</td></tr>
</table>

- An introduction to **Info Center/1**
- **Info Center/1** functions
- An example of how to use **Info Center/1**
- Users and how they use the product
- Customer responsibilities, installation, hardware requirements, and software requirements
- Service and security
- A glossary of terms related to **Info Center/1**

Supplemental Publications

<table>
<tr><td>Related
Materials</td><td>Publications available with Info Center/1 Release 1.1 are:</td></tr>
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Info Center/1 Primer, SH20-6771-0
Info Center/1 Getting Started with Full Set, SH20-6772-0
Info Center/1 Entering and Validating Data, SH20-6773-0
Info Center/1 Analyzing Data, SH20-6774-0
Info Center/1 Managing Data, SH20-6775-0
Info Center/1 Defining Reports, SH20-6776-0
Info Center/1 Creating Business Graphics, SH20-6777-0
Info Center/1 Advanced Functions, SH20-6778-0
Info Center/1 Master Index, SH20-6779-0
Info Center/1 System Support and Diagnosis Guide, SH20-6780-0
Info Center/1 Line Mode, SH20-6781-0
Info Center/1 Quick Reference, SX20-0137-0

Contents

Time is money. As a good business man or woman, you know this. When time is squandered because of information gathering problems, you can almost hear the money going down the drain. That's why **Info Center/1** is such a valuable business tool for you.

Info Center/1 saves time, valuable time. How? It gets you data. It performs necessary operations. It selects and sorts the exact data you want. It builds useful reports. It helps create effective business graphics to support your results. It does all this and more...*quickly*.

You need not be a technical person to successfully use **Info Center/1**. It has clear-cut, logical menus and prompts to lead you through a series of fullscreen displays. An additional aid comes in the form of HELP screens, whenever you need supplemental information or guidance.

You need not be an expert typist to use **Info Center/1**. Many of its functions can be quickly performed by pressing one of the available Program Function (PF) keys on the keyboard. You may also use a combination of commands and full-screen prompts in addition to the PF keys. Experienced users, or those already familiar with IBM's existing Information Center products, may prefer to use the **Info Center/1** express mode functions. These permit faster movement through the program.

Info Center/1 is composed of five major components:

1. User-Defined Data Entry/Validation of Data
2. Data Access and Analysis (Query)
3. The Reporting System
4. Business Planning
5. Business Graphics

Info Center/1 incorporates and extends the functions of previous Information Center products:

- A Departmental Reporting System II including the Business Graphics feature (ADRS II/BG,5796-PLN)
- APL Data Interface II (APLDI II, 5796-PNG AND 5796-PNJ)
- The Financial Planning System II (FPS II, 5796-DCN)

Info Center/1 has added a new tool to quickly enter/verify data. Release 1.1 extends **Info Center/1** to a broader set of environments including MVS 370 or MVS/XA and the relational data base.

Info Center/1 Release 1.0 operates under VM/SP. Release 1.1 operates under VM/SP and MVS/370 or MVS/XA. In addition, Release 1.1 provides the following for both environments:

- APL2 support. This allows **Info Center/1** to run under the APL2 licensed program. This release also operates with VS APL.
- Support for SQL/DS and DB2 operations through a full screen interface when using APL2
- Plotter support.
- National language support.
- Executive Set, developed with the casual user in mind.

User-Defined Data Entry/Validation

Info Center/1's User-Defined Data Entry/Validation tool allows you to see the data in a full-screen customized format.

You can type data in columnar format via a report format, or you can use the time-saving User-Defined Data Entry/Validation tool with your *own* user-defined format.

You can define multiple input screens and/or type data into predefined screens. Data validation includes:

- Range checking
- Limit checking
- Table matching
- Mask comparisons
- Column relations

Query System

Time-saving is a given when you have and use the Query System. It provides you with easy access to and analysis of the data from internal files (inventory, accounts payable, sales) and external data sources (Standard and Poors, Dun and Bradstreet, the United States Census Bureau). You can even link one file to another, if they have a common information base.

Yet another advantage of Query System is the **Info Center/1 Release 1.1**. It provides access to six different file types for selection and analysis.

- Transfer files
- Data interchange files
- SQL tables
- RS Application files
- RS Data files
- Standard Query files available in Release 1.0.

Just like the rest of the **Info Center/1** System, Query is based on a full-screen user interface which provides menus and prompts to guide you through the operations. With Query you are able to ask for particular data and then analyze it, using one of more than 50 analysis functions.

You select data using familiar terms such as *equal to, less than, greater than,* and other conditional expressions. More complex criteria include such functions as:

- Calculate the average contents of specified fields.
- Count the number of unique occurrences of data in specified fields.
- Provide a tabular display of two variables, using one for rows and one for columns.
- Provide frequency distributions based on one of several criteria.
- Allow records to be selected from one file.

(The preceding partial list of functions indicates the flexibility of **Info Center/1** in the data selection and query process.)

You may "browse" the data to look for what you want to select for analysis. Since neither selection nor browsing changes the data in a file, you run no risk in erasing or altering what you are reviewing.

Data you've selected with the Query System can be transferred to the Reporting System. You may also choose to enter the Reporting System without transferring data. Either is done quickly with the use of PF keys.

The SQL/DS and DB2 support in **Info Center/1 Release 1.1** is provided throughout the APL2 Program Product, 5668-899, (refer to Programming Announcement #284-181). **Info Center/1** will use APL2 to access both SQL/DS and DB2 with the same set of panels for both relational environments.

Reporting System

Again, time-saving is a given when you further utilize **Info Center/1's** capabilities...in this case the Reporting System. It provides a comprehensible interactive environment for entering and processing data, and for producing customized reports.

The Reporting System organizes the data into a spread sheet-like format. A broad selection of general business functions available on **Info Center/1** allows you to:

● Review, build or change data
● Define or print reports
● Define and perform calculations on data
● Rearrange or sort data
● Select data
● Store data for later reference, or retrieve a previously stored set of data.

The **Info Center/1** Reporting System includes all of the functions currently in "A Departmental Reporting System II" (5796 - PLN) plus enhancements, which include:

● GO-TO logical capability in programs
● Column name display windows to assist in writing procedures and programs
● Enhanced printing control via nickname files, where a nickname defines a destination (for example, a printer), and its relevant attributes (for example, node/id, type, 3800 or 6670, etc.)
● Optional automatic checkpointing (System does Saves)
● Simplified data movement between subsystems
● 60 financial planning functions, ten of which are new
● Lists of objects
● External transfer files (DIM, DIN, DIDW)
● A new Command (UNIQUE) which allows listing of unique entries in one or more columns
● Data file exchange with ADRS/PC (DIF files)
● SQL capability.

Business Planning

When you want crucial information for future planning immediately, Info Center/1's Business Planning function is exactly what you need. It provides a set of modeling routines involving periodic data that work with the Reporting System. Sixty analytical modeling routines are provided. These may be used singly or in combination.

Users of FPS or ADRS with FPS will find these former FPS functions more completely integrated into the system. Furthermore, ten routines have been added in response to users requests. These are:

- Depreciation Under Accelerated Cost Recovery
- Carry Back or Forward of Income Tax Losses
- Composite Cost of Capital
- Deflated Sales
- Expected Values of Annual Net Cash Flows
- Moving Averages
- Net Present Value
- Regression Trend Line
- Random Numbers
- Seasonal Adjusted "X"

Business Graphics

The Business Graphics facility is a particularly powerful yet flexible tool of Info Center/1. With it, you can design colorful, effective charts and graphics which let you:

- Use eight graphics formats:
  1. Line graphs
  2. Surface charts
  3. Histograms
  4. Pie charts
  5. Scatter plots
  6. Bar charts
  7. Stacked bar charts
  8. Stacked bar charts with first area unshaded
- List either report data or text as annotations on a chart or graph
- Apply annotations to charts or reports in a variety of colors, sizes, thicknesses and angles. For example:

    Lines and shaded areas
    Circles and markers
    Three-dimensional text

- Combine cursor positioning and PF key functions.
- Design custom graphics and request data reduction and summarization.
- Create and store a sequence of graphics for later display on your screen.
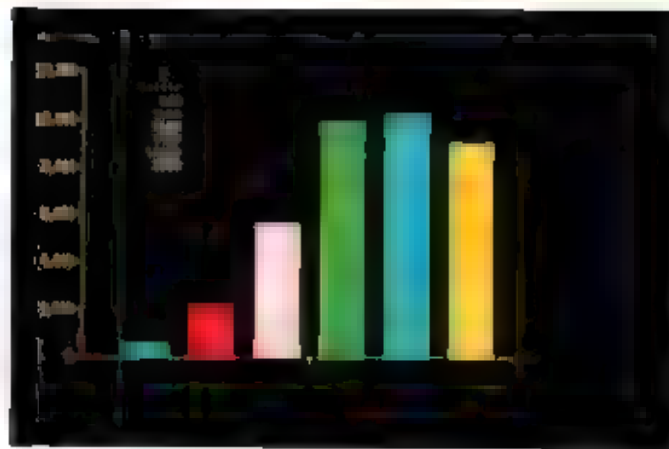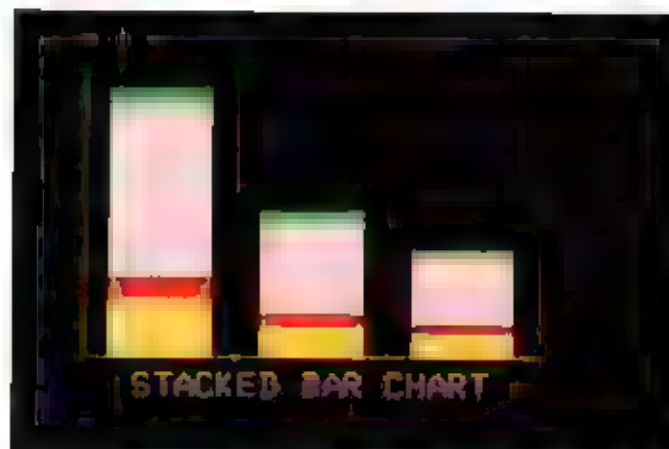- Print and/or save chart definitions, graphs and reports for later processing.

Figure 1. Sample business graphics created with Info Center/1 Report System Business Graphics.

In Summary   After using the IBM **Info Center/1** System for a short time, you'll realize you've got all kinds of advantages working for you and for your business.

- Incorporation and enhancements to the functions of IBM's A Departmental Reporting System II with the Business Graphics Feature (ADRS2/BG), APL Data Interface II (APLDI II), and the Financial Planning System II (FPSII)
- Express mode for the experienced user
- Full-screen interface
- Prompts
- HELPS
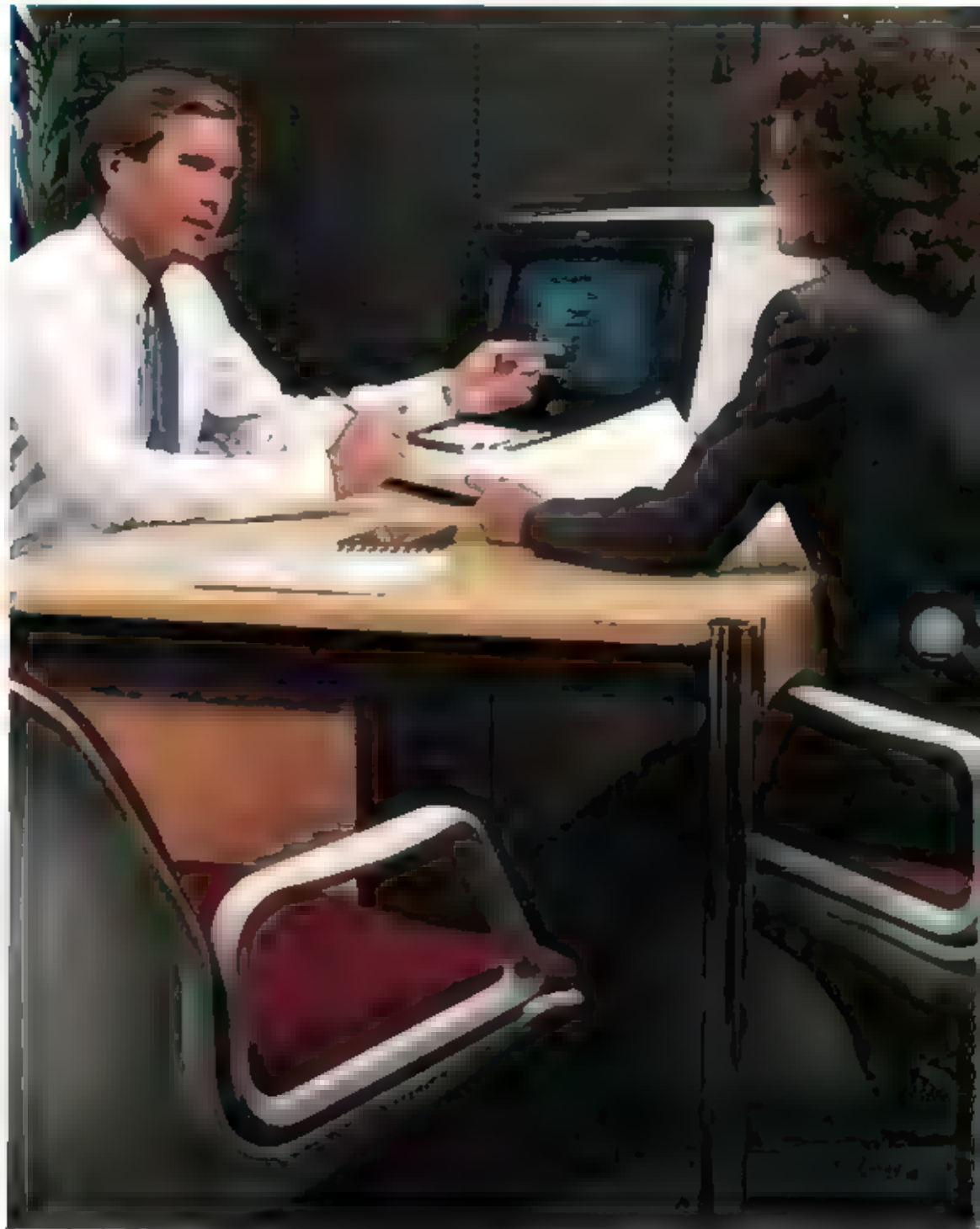- PF key usage
- User profiles

    Printer destinations
    Page parameters

- Ability to transfer data between the Query System and the Reporting System.

Additionally, **Info Center/1** uses:

- The facilities of the Application Prototype Environment to support the end user interface. The powerful application development capabilities of this program are also available to the **Info Center/1** user.

- The APL language. While no APL programming skills are required to fully utilize the facilities of **Info Center/1**, the complete capabilities of APL are available to the user for additional extensions to the product. With **Release 1.1**, the added power of APL2 is available to the user.

Using the Info Center/1

There's an old way and a new way to make business decisions. No use wasting your time talking about the old way, because that's what you want to avoid. Instead, you want to know how **Info Center/1** can help you make rapid, high-level decisions utilizing the vital information your business needs to successfully operate. With **Info Center/1**, you have a system that helps you quickly gather, sort, and interpret information to give you useful reports and colorful, powerful business graphics—the necessary components to effective business decisions.

Read the following example to discover the power, flexibility, and ease of use you have when using **Info Center/1** in performing your daily decision-making routines.

Performing Query Operations

You are interested in looking at the individual efforts in your sales force. You want both a sales report and an attached graph showing individual sales commissions. Here's how you get them:

1 Enter the Query System by selecting "ENTER QUERY SYSTEM" from the **Info Center/1** MAIN MENU (Figure 2). You are asked to enter the file name containing the data on sales.

2 If you know the name of the file you can immediately type the name. If you don't know the name and need to see a list of all files available, you would press the PF 2 key (?) which displays a list of files. (The file used here has been called DEMOSALE.)

Figure 2. Info Center/1 MAIN MENU showing "ENTER QUERY SYSTEM" command.

3 After entering the file type and the file name, you are asked for further query information, including:

> Criteria for selecting a salesperson
> Selections for sorting and subdividing the data (in this example, by quantity of product sold and calculated total sales and total cost)
> An option to also show these figures in percentages.

4. If you require help at any point, press the **PF1** key and additional information is displayed on the screen.

5. When all pertinent information has been given, your screen displays the results of your Query as shown in Figure 3. You can scroll forward or backward through all of the data using other **PF** keys. Note that a column heading showing the total number of entries has been added, and that two additional columns of information, F(1) and F(2), show the sales and costs calculated from the other data.

Figure 3. RESULTS OF QUERY screen from the Query program.

6. By simply pressing the **PF1** key, you can now automatically move this data to the Reporting System where you can perform further calculations, prepare the desired sales report, and build a graph of sales commissions.

Using the Reporting System

The Reporting System Menu contains options for the following functions:

- Selecting and viewing the data to be used
- Arranging and labeling data
- Performing your own calculations on the data
- Performing complex calculations using one of the 60 predefined financial planning functions
- Printing a report
- Building graphs from the data
- Developing screens for entering data in your own format
- Validating data on the spread sheet-like format.

Figure 4. The REPORTING
SYSTEM MENU.

After moving your data to the Reporting System, you can continue with the example:

1. You have the option of redesigning the structure of the columns defining such things as:

   Column width
   Number of decimal places in a numeric column
   New column headings.

2. You can look at the results of your work by selecting the REVIEW/CHANGE DATA
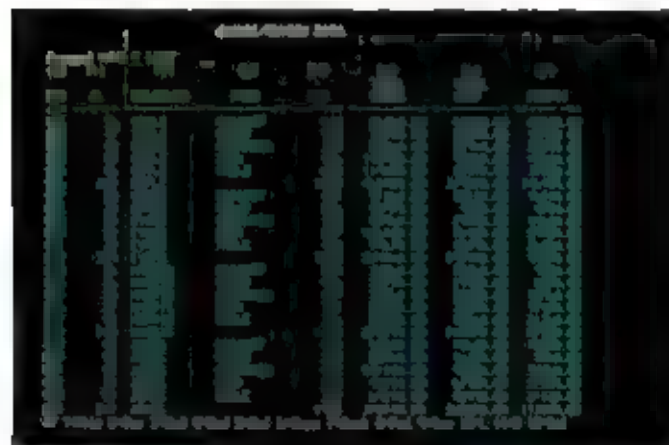   SCREEN. The result might look like what is shown in Figure 5.

Figure 5. Example of
REVIEW/CHANGE
DATA SCREEN.

3. Next, you can write a statement that calculates the profit once the report is written. This
   procedure is accomplished with the aid of the arithmetic operations defined by Info
   Center/1.

4. At this time you are asked to define your report by giving it a number and name. Then you can proceed to assign format, report headings, column headings, include additional informational text, and finally, review the report format when you have completed these tasks.

5. Now you are ready to display the report you have created with the help of **Info Center/1**. With the entry of one or two characters, the result may look like the partial report shown in Figure 6. (You can either display the report on your terminal or send it to a printer.)

Figure 6. Example of screen showing a partial report listing.

6. You can calculate sales commissions with the same process. The results are used in the following graphics example.

Producing Business Graphics

Now you are ready to use the Business Graphics program of the Reporting System.

Figure 7. Example of BUSINESS GRAPHICS

A Reporting System Menu displays the options available for defining business graphics. In this example you might choose an option for creating a pie chart depicting each salesperson's commission as a portion of the total pie. By simply telling the system to first, use only the rows which contain this information, and second, show the results in the form of a pie chart, your display should resemble the one shown in Figure 8.
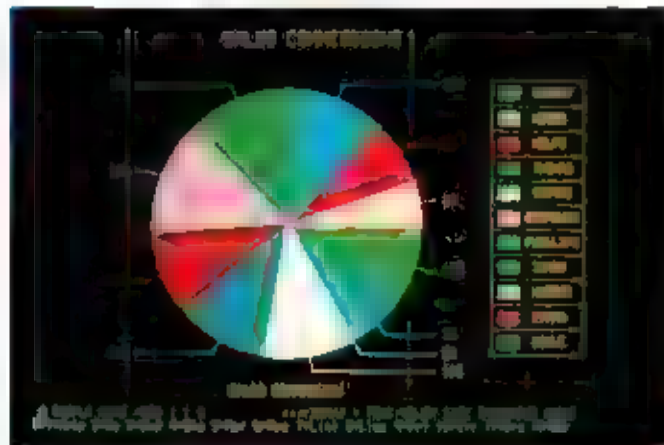

Figure 8. Example of screen showing pie chart of commissions for each salesperson.

Entering and Validating Data

If you are more experienced at using **Info Center/1** and are knowledgeable in APL programming, commands are available allowing you to design data entry screens for display in specific sequences. Full screens can be defined to prompt for data entry into these previously designed reports. Rules are defined to validate data as it is entered.

These commands enable you to custom-design data input displays to meet the unique needs of your organization. They also make it possible to automatically input data from other application files. And, because this data is validated, you can still take advantage of the speed and accuracy possible with **Info Center/1**.

A Final Word

In short, using **Info Center**/1 daily gives you a decided edge in decision-making. You'll have a constant information flow which you can turn into accurate, timely and meaningful reports and business graphics.

Your entire organization benefits from:

- Compatibility and easy access to operational data extracted from the data processing files/data bases
- End user support for **Info Center**/1 provided through a central, professional support organization, the Information Center
- Departmental time-shared systems supported by the sponsoring departments, allowing each one the responsibility for operating personnel, security, data backup and recovery
- Centralized support provided by the Information Center, allowing data processing departments to exercise organization-wide control and consistency of resources to all levels of users
- Increased savings in time for professional programmers, allowing them to concentrate on operational-level support applications
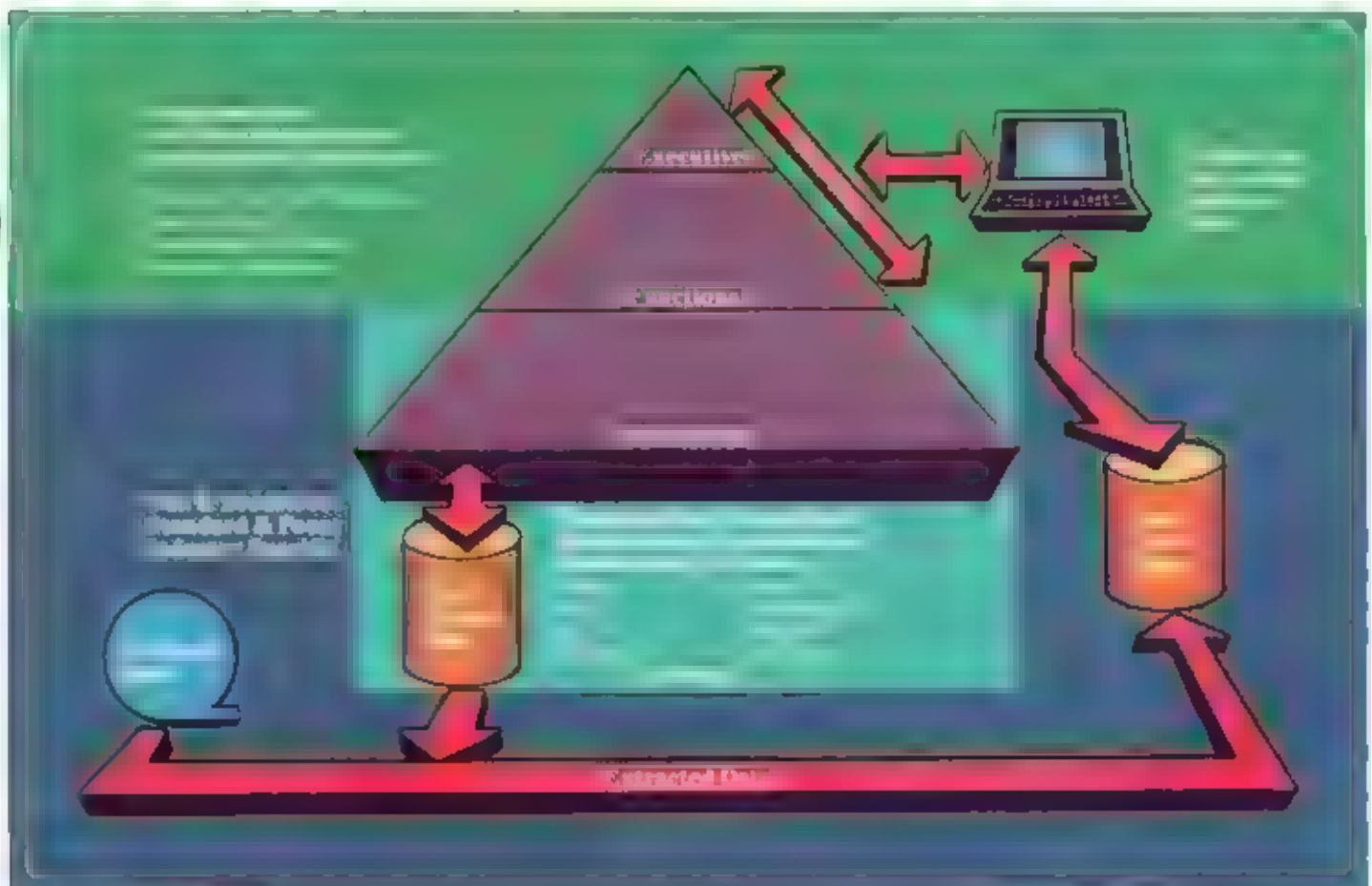
Who Uses Info Center/1 and How

If you are an executive, manager or staff member involved in decision-making, you'll find Info Center/1 invaluable. With its powerful data management and analysis capabilities, plus unlimited "what if" inquiries, you can easily perform:

- Future financial planning and modeling
- Analyses of current business trends
- Cash flow analysis
- Forecasting
- Any business function requiring selection, analysis and reporting of data.

In other words, with Info Center/1 at your disposal, you can perform any business application you can imagine...quickly

Figure 9. Typical organizational chart.

Operating Environment

Hardware Requirements

The Info Center/1 product operates on the IBM 42XX, 303X, and 308X processors. The minimum required hardware configuration is the same as that required for the operating system environment. In addition, one terminal with the APL feature is required for maintenance functions, and one 1600 BPI or 6250 BPI tape drive is required for installation.

Info Center/1 is a device-independent application and will support any terminal supported by GDDM using 3270 protocols.

Software Requirements

Info Center/1 operates under MVS or VM AND GDDM, VS APL or APL2 Application Prototype Environment and PL/1 Transient Library at appropriate release levels.

In the MVS environment, TSO/E is supported.

For plotter support, the Color Plotter Support for the GDDM Graphics Data File (5668-860) or GDDM Release 4 may be required.

Migration/Coexistence

APLDI II files may be used directly by Info Center/1. Files created by the STORE command of ADRS II can be activated within Info Center/1 without change. APLDI II stored procedures, (Delta Variables) can be copied into Info Center/1 applications, and in most cases will operate without further modification.

Info Center/1, ADRS II, APLDI II and FPS II may coexist without conflict.

Services/Customer Responsibilities

Installation

Installation of a licensed program is the responsibility of the customer. At the customer's request, Branch Office personnel may assist with the installation activities.

Installation of prerequisite products at proper levels is also the responsibility of the customer.

Problem Determination

Problem determination and problem source identification are the customer's responsibility. Customers are encouraged to designate an interface with IBM service organizations for problem reporting and problem tracking.

Data Security, Auditability and Control

VM/SP and MVS provide facilities designed to prevent unauthorized access of data. Info Center/1 permits the use of the security and data integrity of the host environment, but does not, in itself, provide additional security functions.

Customer management is responsible for the selection, application, adequacy, and implementation of all security features, and for appropriate application and administrative controls. Where natural language text and/or data is to be transmitted via public communication facilities, management may wish to consider the use of encryption.

Glossary

business graphics. A function of the Info Center/1 system whereby data is converted into graphic representations

chart. A pictorial representation of data

chart report. The data and headers associated with a given chart and represented in a color-coded table.

column headers (or headings). Text which describes the column over which it is centered

command. A request from a terminal for the performance of an operation or the execution of a particular program.

data base. A collection of stored data.

data entry. The method of entering data into a computer system for processing, usually via terminal applications.

data record. A collection of items of information (supplied by the user) that is treated as a unit.

default. An alternative value, attribute, or option that is assumed when none has been specified.

external file. An APL or non-APL based data file that is not in the currently active workspace.

field. A specified area in a record used for a particular category of data.

file. A set of related records that is treated as a unit

function. A series of computer instructions executed to perform a particular task

graph. A pictorial representation of data.

input data. Data received into a data base.

numeric. A character set that combines digits (0-9) and may contain special characters. Letters A-Z are not included

periodic data. Data appearing or recurring at regular intervals (annual, quarterly).

PF key. A numbered key that is pressed to tell **Info Center/1** to perform an operation. PF stands for "progam function." A PF key enables you to give **Info Center/1** complex instructions with one keystroke.

print List information on the terminal display (in QUERY) or get a hard copy of information (in REPORT)

program. A set of actions or instructions that a machine is capable of interpreting or executing.

record. A collection of related data or words, treated as a unit

row number. A positive number representing a row's relative position from the top

scrolling. Moving a data display up, down, left, or right in a manner that causes new data to appear at one edge of the screen as old data disappears at the opposite edge

selection. Setting up a criterion for selecting records from a data file

spread sheet. A tabular display of information.

workspace. A portion of the computer's temporary storage that the system allocated to a user when he logs on. All interaction between the user and the system takes place through this area.

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